

## **An Economist's Perspective on Sustainability and Community Benefits**

Michigan Senate Economic Development Committee  
September 28, 2011

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## **Sustainable Supply Chains Incorporate All Costs in Price**

- For economic and social efficiency, the price of the economic activity must reflect the true cost.
- Costs that lie external to the market lead to inefficiency.
  - Price should include the cost of remediating the pollution problem created by transport
  - Price should include the cost of remediating health and safety problems created by transport

## **Inefficiency and Sustainability**

- Inefficient markets are not sustainable and lead to social conflict.
- When society, not the user, bears the cost, markets demand more than an efficient quantity of the product or service.
- Winners could compensate losers to overcome social cost.
- Markets that incorporate environmental and safety cost have the funds to compensate losers.

## **Inefficient business activity like this is unsustainable**

- Either taxpayers subsidize the activity directly, or the public subsidizes the activity by paying the cost of the externality.
  - Since it is inefficient, this is dead-weight loss.
  - “Pay me now or pay me later”.
- Unsustainable activity is also inequitable.
  - Some people will suffer as a result of the activity, while others prosper (wealth transfer).
  - The alternative: people who suffer will put up a fight to block it.

## **Community Benefits Concept**

- The concept of “community benefits” allows diffuse winners to compensate local losers.
  - Use of infrastructure from which everyone benefits should compensate local residents for lost quality of life due to traffic and pollution.
  - Community benefits achieves an economically and socially efficient outcome.
- Concept of “community benefits” prevents market failure and encourages development
- Community benefits heads off local opposition to growth and is good for everyone in the state.

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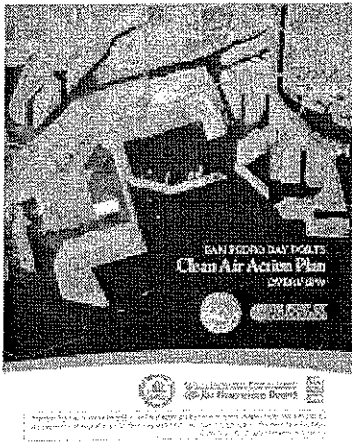
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## Clean Air Action Plan

Taking an unprecedented joint action to improve air quality in the South Coast Air Basin, the ports of Long Beach and Los Angeles have adopted the San Pedro Bay Ports Clean Air Action Plan, a sweeping plan aimed at significantly reducing the health risks posed by air pollution from port-related ships, trains, trucks, terminal equipment and harbor craft. The Final 2006 Clean Air Action Plan documents (Overview, Technical Report, and Comments Compendium) have been updated based upon input received during the comment period.

The San Pedro Bay Ports Clean Air Action Plan was created with the cooperation and participation of the South Coast Air Quality Management District, California Air Resources Board and U.S. Environmental Protection Agency.

The five-year Plan proposes hundreds of millions of dollars in investments by the ports, the local air district, the state, and port-related industry to cut particulate matter (PM) pollution from all port-related sources by at least 47 percent by 2012. Measures to be implemented under the plan also will reduce smog forming nitrogen oxide (NOx) emissions by more than 45 percent, and will also result in reductions of sulfur oxides (SOx) by at least 52 percent. NOx is a precursor of smog; SOx contributes to particulate matter; and PM has been shown to lead to health problems.

Under the Plan, the ports propose to eliminate "dirty" diesel trucks from San Pedro Bay cargo terminals within five years by helping to finance a new generation of clean or retrofitted vehicles.

The Plan also calls for all major container cargo and cruise ship terminals at the ports to be equipped with shore-side electricity within five to ten years so that vessels at berth can shut down their diesel-powered auxiliary engines. To reduce emissions of air pollutants, ships would also be required to reduce their speeds when entering or leaving the harbor region, use low-sulfur fuels, and employ other emission-reduction measures and technologies. The Clean Air Action Plan accelerates the efforts of a California Air Resources Board pollution reduction plan by requiring faster replacement of existing cargo-handling equipment with new equipment that will meet the toughest U.S. Environmental Protection Agency emissions standards.

Under the Clean Air Action Plan, diesel PM from all port-related sources would be reduced by a total of 1,200 tons a year, NOx would be reduced by 12,000 tons a year, and SOx by 8,900 tons a year.

Note: Several of the CAAP files are very large. We have posted the documents as full text and in sections to facilitate downloading. We also suggest saving the files and opening them from your computer, rather than opening them directly in Adobe Reader from the website. To do this, "right-click" on the links below and "Save Target As" to your computer.

[Click here](#) to view a fact sheet on the Clean Air Action Plan.

[Click here](#) to view a FAQ (frequently asked questions) about the Clean Air Action Plan.



## **Clean Trucks Program**

### **Overview**

The landmark Clean Trucks Program is in the process of dramatically modernizing the port trucking industry and slashing truck-related air pollution by 80 percent by 2012. The Clean Trucks Program is outlined in the San Pedro Bay Ports Clean Air Action Plan. Diesel-powered harbor short-haul (drayage) trucks are a major source of air pollution. The Clean Trucks Program calls for drayage truck owners to replace old polluting trucks working at the port. The Port of Long Beach Clean Trucks Program includes truck registration requirements to identify "clean" trucks; ensure reliable short-haul service; and improve air quality, security, and safety. Trucks that meet the federal 2007 emission standard produce 80 percent less air pollution than older trucks.

### **Motor Carrier Registration**

Only port-permitted trucks will be allowed to work at the Port of Long Beach. The port will grant access to trucking firms that:

- Submit a completed Motor Carrier Registration and Agreement form with \$250 Registration fee (if applicable)
- Register their trucks with the port through the Port Drayage Truck Registry (PDTR)
- Meet port "clean truck" standards
- Use drivers that meet security requirements including enrollment in the federal Transportation Worker Identification Credential (TWIC) program
- Tag their vehicles with radio-frequency identification devices so the port can monitor compliance

The Port of Long Beach program offers flexibility and choice for the trucking industry. LMCs will be allowed to use employee drivers, independent contractor drivers, or a combination of employee and contractor drivers – as they do now.

### **Truck Ban Schedule**

Old polluting trucks are being progressively banned from entering port shipping terminals.

- October 1, 2008: All pre-1989 trucks have been banned.
- January 1, 2010: 1989-1993 trucks have been banned from port terminals. Trucks with engine Model Years 1994 to 2003 will be allowed access only if equipped with a level 3 verified diesel emission control system (VDECS) that also achieves a minimum 25 percent reduction in NOx emissions. Trucks with engine Model Years 2004 and newer will continue to have access until January 1, 2012
- January 1, 2012: All trucks that do not meet the 2007 federal clean truck emission standard will be banned from port terminals.



The Port of  
**LONG BEACH**  
The Green Port

**Clean Trucks Fee**

On February 18, 2009, the port began collecting a temporary Clean Trucks Fee of \$35 per loaded twenty-foot equivalent container unit (TEU) to help finance truck replacement.

- Loaded containers moved by trucks with 1994-2006 Clean Truck Program compliant engines are assessed the \$35 per TEU fee
- The fee is charged to cargo owners
- The fee will expire, or "sunset," in 2012 when all trucks have been replaced by 2007 or newer models
- Cargo owners can be exempt from paying the Clean Trucks fee if they utilize a clean truck
- The fee does not apply to containerized cargo moving through the port by train
- Unlike PierPass, the Clean Trucks Fee will be charged on domestic cargo (for example, Mainland trade destined for Hawaii, Guam, or Alaska). The Clean Trucks Fee also applies to cargo trucked to rail yards outside the port
- The fee will be collected through PortCheck, an organization created specifically to collect the Clean Trucks Fee from cargo owners. PortCheck operates like the existing PierPass, by collecting fees from cargo owners via an online, internet system. All cargo must be "claimed" by cargo owner before it can be moved

**For more information**

- Go to [www.polb.com/cleantrucks](http://www.polb.com/cleantrucks)
- For questions concerning grant and lease programs offered by the Clean Trucks Program please call our toll free Clean Truck Center Help Line at 888-KLN-TRUX (888-556-8789)

For questions concerning your Port of Long Beach Clean Trucks Registration please e-mail [polb@tetrattech.com](mailto:polb@tetrattech.com) or call our toll free Clean Trucks Program Help Line at 866-721-5686